

COMMENTS AND OBSERVATIONS ON AARON

By Mark-Elliott Lugo

Visitors to museums and galleries usually encounter Harold Cohen's art in the form of an exhibition of prints on paper or digital images projected onto a wall. Unless they're clued in beforehand, museum goers are unaware that the art they are viewing was entirely conceived and executed by a computer program. That program, AARON, designed and refined by Cohen over the past four decades, has earned its seventy-nine-year-old inventor something approaching rock star status in the field of artificial intelligence. One peer was sufficiently awe-inspired to dub him "The Father of the Algorists." (Cohen, incidentally, still considers AARON to be a work in progress.)

On the international contemporary art scene, Cohen first achieved notoriety in the 1960s as one of England's most talented young painters. A recent resurgence in interest in paintings by British artists from that period has made Cohen's early works more prized than ever before by collectors and institutions. As far as Cohen is concerned, however, that chapter in his life might as well be ancient history. His legacy, he believes, rests with AARON, a completely new and historically significant way of artmaking.

While Cohen's training and accomplishments as a studio artist have undoubtedly influenced AARON's aesthetics, he rather proudly admits that – and this is where the ramifications of an AARON-fueled paradigm shift become painfully clear and alarming to art world purists – AARON's skill has long exceeded his own abilities as an artist. AARON's achievements, in fact, never cease to amaze him. By inference, AARON's art is superior to that produced by the vast majority of human artists. (As a curator who grapples daily with an unrelenting deluge of mediocre art by trained professionals, I believe I can attest to that.) Even more unsettling is that AARON has upped the ante. Whereas the greatest artists occasionally falter, AARON is unerringly consistent and its capacity to produce interesting and perfectly resolved works appears to be limitless.

The only copy of the software program that is AARON resides in a computer in Cohen's studio. People, even those knowledgeable about computers, are invariably one hundred percent wrong when they think they've figured out how AARON works. It's that revolutionary. Skeptics, including a surprisingly large number of creative thinkers who identify themselves as artists, have difficulty envisioning AARON as anything more than a computerized tool directly manipulated by a human (like Adobe Photoshop or Illustrator), so Cohen delights in pointing out that he enjoys nothing better than waking up in the morning to an array of completely original masterpieces that AARON created overnight while he (Cohen) was asleep. From that point on, Cohen assumes what is essentially a curatorial role, viewing AARON's works on a computer screen and selecting those he likes.

On rare occasions, primarily for demonstration purposes, AARON's progress as it builds images with lightning speed can be made visible by Cohen and observed on a computer monitor. Indeed, watching AARON in action from the time it begins making a detailed line

drawing until it finishes adding color can be as riveting as a movie thriller. Even halfway through the creative process, when an image has evolved to the point that it is only an infinitely complex filigree of delicate linear forms, a mere skeleton of what it will become, the product is elegant and beautiful.

One might expect art generated by a computer program to be cold, sterile, literal, mechanical, and one-dimensional, but AARON's is not. If anything, it's the opposite: uplifting, exciting, invigorating. Like most mature artists, AARON has a style that is unique and instantly recognizable as its own. Manifesting continuity without repetitiveness, each work is markedly different from those that preceded it and those that will follow.

AARON's art is multileveled, incorporating dynamic explosions of line and saturated color alongside delicately nuanced and subtle passages. Equally tantalizingly, AARON rises admirably to the challenge of melding abstraction and representation. In 2004, for example, Cohen instructed AARON to abandon figurative subject matter and to focus exclusively on creating botanically derived forms. In AARON's vernacular, those are primarily leaves, branches, and stems; an orientation that continues to the present day. It's worth noting that Cohen's coastal Southern California residence and studio and the gardens surrounding them are filled with a wide variety of plants ranging from the common to the exotic. That being said, there are no equivalents in nature for the forms AARON renders, but the inventiveness of the shapes and the ways in which they are abstracted, layered, interwoven, organized into compositions, and juxtaposed against backgrounds, are extraordinary by any standards.

One of the greatest challenges facing Cohen has been to imbue AARON with a sense of color; a task that has occupied him for nearly twenty years. The enormity of this endeavor can't be overstated because AARON has never had a built-in optical system for seeing or perceiving color. Yet, AARON formulates its own colors and determines the placement and quantities that will be used in each composition. From a viewer's perspective, much of the excitement that comes from being in the presence of AARON's art has to do with the program's use of color and its seemingly limitless palette. Colors can range from striking combinations of vibrant, nearly phosphorescent hues, to variations in color so subtle, they're barely visible when placed adjacent to each other. Cohen calls the latter "the minimal perceptual gap" and has devoted considerable effort to making this detail work.

Like its approach to artmaking in general, AARON celebrates and embraces color (including countless shades of black) with absolute fearlessness, unencumbered by adherence to realism; joyous in its celebration of the decorative, yet open to a darker side (often in the same work); and immune to art world trendiness. This is another example of the inexplicable ways in which AARON has taken on a life of its own. Cohen isn't sure why AARON is as successful as it is working with color. It just happens. One thing is certain however. AARON's colors are so saturated that they are difficult to reproduce using conventional printing methods. They must be seen in person to be appreciated.

The graphic power of AARON's imagery – the kaleidoscopic colors combined with the vitality of the forms – will likely be the first attribute to capture a viewer's attention, especially from a distance. However, much of the beauty of AARON's artistry lies in the details, especially in

the intricacy of AARON's rendering. These are best seen close up in the large-scale prints where AARON's inventiveness when it comes to handling line and delineating forms can really be appreciated. AARON has a broad and unique arsenal of tactics for expressing itself through line. For example, the weight and character of its lines vary from inch to inch. They could be poured, dripped, splattered, painted, scribbled, drawn, carved, incised, or stenciled. At times, however, AARON's sophistication is revealed more by what it doesn't do. For example, AARON has mastered implied line, that is, the ability to suggest a line rather than actually drawing it; a critical insight that many human artists never acquire.

AARON's treatment of the edges of lines is unconventional and striking. The edges range from smooth to serrated, undulating to scalloped, not unlike the cacti and succulents in Cohen's garden. Even more fascinating is the way AARON often works within the lines themselves, creating additional shapes that, at times, suggest internal cellular structures.

Artists, in particular, are likely to notice additional characteristics of AARON that are particularly well resolved and astute. One is the program's ability to create a dynamic and well-balanced, yet asymmetric composition within the rectangular format of the "canvas," all the while bleeding the image off all four edges of the piece. A related issue is AARON's perceptive use of negative space and the figure-ground relationship. Another is that AARON allows the spontaneously occurring accidents, glitches, and anomalies that often give a work of art its character to remain, rather than efficiently cleaning them up. All of these devices steer AARON's imagery away from the engineered and mechanical, towards the organic.

Most impressive of all, in the final product, AARON arrives at a perfect balance of color, form, and density of imagery. In human artist terms, that would be knowing when a work of art was finished (a judgment that becomes more difficult as a work becomes more abstract), but, of course, AARON doesn't work that way. General parameters, including densities related to the scale of the work, are determined by AARON before it lays down a single stroke, although the program has considerable creative latitude once the rendering process begins. However, it's fun to image a scenario in which AARON has gone berserk in an unstoppable frenzy of creativity, not satisfied until every square inch is crammed with an impenetrable jungle of color and line. But that never happens. AARON always maintains perfect self-control.

Although they are phenomenal technical accomplishments and quite beautiful, the prints – the tangible evidence of AARON's creativity – have been overshadowed by the novelty and ingenuity of the program's technology and have never been written about in detail. Aside from "curating" the images generated by AARON, overseeing the printing and preparing the prints for exhibition are the only aspects of AARON's artmaking process that call for "hands-on" intervention by Cohen and an assistant.

As anachronistic as a term like "craftsmanship" might seem in the context of much of today's art world, Cohen strives for an impeccable end product. Major advances in inkjet printing technology in the past few years (not only in the mechanics, but in also in inks and papers) have made it possible to produce images with heretofore unachievable colors and stability. Countless trials and experiments by Cohen using an industrial inkjet printer have resulted in dazzling prints whose lushness is reminiscent of hand-pulled or silk-screened

prints from a world-class atelier. Cohen attributes his fastidiousness with the production quality of the prints to the rigorous studio training he received in London and the emphasis, back then, on creating archivally stable works that could withstand the passage of time.

Eventually Cohen resolved the issues related to the printing, but he was still bothered by conventional framing. The cumbersome frames needed to protect and display large-scale prints, coupled with the distracting reflections off expanses of Plexiglas (which create a barrier between the viewer and the art), were a major issue.

Beginning in 2006, Cohen began experimenting with various means of offering viewers and collectors a more effective and aesthetically pleasing interface for AARON's prints. Ultimately, he developed a process which entailed gluing the prints to a substrate, sealing them with several coats of acrylic polymer, then applying a final protective polymer varnish. Finished off with a simple contemporary frame, they have been mistaken for precisely executed paintings, perhaps harkening back to Cohen's roots as a painter.

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